

Polymerization of styrene and

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S/199/61004/10-10-11
B1'0/5147

agents (without metals of variable valency). Monoethanolamine, dioxymethane (II), sodium bisulfite, and the bisulfite compound of acetone were additional reducing agents. Their effect was investigated with systems of two H₂O₂ of different initiating activity and two complex compounds of bivalent iron. The ratio hydrocarbons (70 % by weight of styrene, 30 % by weight of butadiene) : water was 1 : 4. 2-8 % by weight of emulsifier (Nekal, Mersolate) were used. Optimum rate of polymerization was established at 0.34 % by weight of HP I and 0.2 % by weight of HP II (related to monomer). At the copolymerization butadiene-styrene by means of HP I + III, the optimum rate of polymerization was established for $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ and $\text{Na}_4\text{P}_2\text{O}_7 \cdot 10\text{H}_2\text{O}$ 0.75 : 1. Increase of the concentration of III from 0.35 to 0.70 moles/mole of HP I accelerates the process considerably. After 4 hr, the polymer yield increases to ~48 % at an increase of III from 0.2-0.35 moles/mole of hydrogen peroxide, and to 65 % at a further increase. At 5°C, additional reducing agents hardly affect the rate of polymerization. At 20°C, addition of V to Ia-III causes polymerization acceleration and 75 % monomer conversion after 3 hr, when it is only 40 % without V. In the system II and III optimum polymer yield is observed at 1.5 moles of III per mole of HP II. For IV, an optimum yield

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15 9201 13 72, 1436, 1474

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AUTHORS: Ushakov, V. D., Mezhirova, L. P., Galata, L. A.,
Khusnutdinova, Z. S., Sheynker, A. P., Medvedev, S. S.,
Abkin, A. D., Khomikovskiy, P. M.

TITLE: Polymerization of styrene and butadiene with styrene in
emulsions under the action of initiating redox systems.
II. Effect of the nature of the reducing agent on the rate
of polymerization

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 11, 1961,
1723-1729

TEXT: The effect of the reducing component of initiating systems and of
the addition of a second reducing agent on the rate of polymerization is
studied. Used were systems of hydroperoxides (HP) of isopropyl benzene
(I) or o-tert-butyl isopropyl benzene (II) with ferropyrrophosphate
complex (III), potassium ferrocyanide (IV), ferrous sulfate with
o-phenanthroline, or of complexes of α, α -dipyridyl with ferrous oxalate.
Sodium bisulfite and the bisulfite compound of acetone served as reducing

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Polymerization of styrene and...

phase boundary, for I + IV also in the aqueous phase. The existence of a maximum of the rate of polymerization for I and butylisopropyl hydroperoxide is caused by polymerization inhibition due to the decomposition products of the hydroperoxides. The authors thank A. G. Pod'yapol'ska for help with experiments and T. I. Yurzhenko (Lvovskiy industrial'nyy institut (Lvov Industrial Institute)) for supplying some hydroperoxides. There are 5 figures, 1 table, and 7 references: 4 Soviet and 3 non-Soviet. The two references to English-language publications read as follows: F. A. Bovey, I. M. Kolthoff, Emulsion Polymerization, New York, 1955; C. F. Fryling, Industr. and Engng. Chem., 41, 986, 1949.

ASSOCIATION Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-chemical Institute imen: L. Ya. Karpov)

SUBMITTED: December 28, 1960

Card 5/05

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Polymerization of styrene and...

by weight of hydroperoxide of II (equimolar ratio to the monomer) optimum rate was achieved with IV. The highest yield was achieved with aryl-alkyl hydroperoxides (I and 1,1-diphenyl ethane hydroperoxide (III)) (Table). With an emulsifier concentration of 2.8 %, maximum conversion (70-75 %) was achieved after 2 hr with 0.2 % by weight of I and with 0.3 % by weight of III. With 0.34 % by weight of II, optimum conversion (~30 %) was achieved after 2 hr. Polymerization of I and IV with 1.4 or 2.8 % by weight of emulsifier was constant up to 30 % conversion, then the rate dropped. With 1.4 % by weight, the initial rate was lower and the decrease more distinct. With an addition of 0.1 % by weight of hydroperoxide + 0.26 % by weight of IV (after 1 hr new addition of 0.1 % by weight of hydroperoxide and 0.18 % by weight of IV), constant polymerization took place up to 60 % conversion. Thus, the consumption of the initiating system causes a decrease in rate. The efficiency of redox systems and initiators depends on the reactivity of the radical as well as on the solubility of the peroxide compounds in the aqueous phase and in the monomers. The lower the solubility in water, the lower the loss and the stronger the initiating action. I + IV cause a higher rate of reaction than II + IV due to lower activation energy and lower solubility in water. For II + IV, the redox reaction occurs at the

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of II, only the initial rate increases. The total yield is lower than with 0.1 % by weight of II. Between 0.75 and 1 % by weight of II, initial rates and total yield are much lower. With 0.02-0.2 % by weight of I, initial rates increase. Since the total rate decreases at 0.2 % by weight, the dependence of the reaction rate on the hydroperoxide concentration is probably linked with the inhibiting effect of the decomposition products of hydroperoxide. With 0.1 % by weight of I and an equimolecular amount of $K_4Fe(CN)_6$, both total yield and initial rate increased with increasing temperature. The activation energies were determined according to the Arrhenius equation and found to be: $E = 8.6$ kcal/mole for II and $E = 5.7$ kcal/mole for I. Reduction of E by 3 kcal/mole at $\sim 0^\circ C$ corresponds to a 200-fold increase of the reaction rate. Since the rate is twice as high at $0^\circ C$, the pre-exponential factor in the Arrhenius equation increases by 10^2 times with decreasing activation energy of I. For the copolymerization of butadiene with styrene (ratio 70 : 30) at $5^\circ C$, the following was used: Nekal (2.8 and 1.4 % by weight added to water). 0.44 % by weight of ferropyrrophosphate (related to iron sulfate) of the monomer. The ratio organic phase : aqueous phase was 1 : 4 (by weight). In the case of 0.34 %

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as oxidants (Table). Potassium ferrocyanide and ferrous pyrophosphate complex (IV) served as reducing agents. The rate of polymerization was determined either dilatometrically or from the yield of polymer (in ampules). Polymerization took place at 5°C with an excess of butadiene, styrene with peroxides dissolved in it (10 % solution), and the calculated amount of emulsifier solution. A suspension of the ferrous pyrophosphate complex was added at a certain temperature by means of medical syringes. Substances used: (1) mercaptate (3 % by weight added to water, ratio monomer:emulsifier 1:3); (2) potassium ferrocyanide. The temperature was varied between 0 and 40°C. Seven peroxides were investigated in amounts equivalent to 0.02 and 0.1 % by weight of isopropyl benzene hydroperoxide. $K_4Fe(CN)_6$

was used in concentrations equimolecular to hydroperoxide. p-tert-butyl isopropyl benzene hydroperoxide (I) had the optimum rate of polymerization; that of ethyl isopropyl benzene peroxide, isopropyl benzene- (II), and n-py. benzene hydroperoxide was lower; that of dibenzyl hydroperoxide was lower, and that of benzoyl peroxide the lowest. Polymerization with H_2O_2 proceeds fast at the beginning, then it decreases strongly, since H_2O_2 and the reducing agent are readily soluble in water. With 0.2-0.5 % by weight

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AUTHORS: Ushakov, V. D., Mezhirova, L. P., Galata, L. A., Kostyak, A. G.,
Khusnutdinova, Z. S., Medvedev, S. S., Abkin, A. D.,
Khomikovskiy, P. M.

TITLE: Polymerization of styrene and butadiene with styrene in
emulsions under the action of initiating redox systems.
I. Effect of the nature of peroxide compounds on the rate
of polymerization

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 11, 1961,
1716-1722

TEXT: Aim of the present work was the determination of the most active
initiating redox systems for the polymerization of butadiene with styrene
in emulsions, and especially of the effect of the nature of peroxides on
the rate of polymerization. Nekal with 20 % of Na_2SO_4 and NaCl and
mersolate (mixture of Na salts of sulfonic acids of the aliphatic series:
 $\text{C}_{15}\text{H}_{31}\text{SO}_3\text{Na}$) with 5 % of NaCl served as emulsifiers. Peroxides were used

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88731

The carbanionic mechanism of...

S/190/61/003/001/015/020
B119/B216

issledovatel'skiy institut sinteticheskikh smol (Vladimir Scientific Research Institute of Synthetic Resins) for carrying out the elementary analyses. There are 4 figures, 2 tables, and 8 references: 5 Soviet-bloc, and 3 non-Soviet-bloc.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-chemical Institute imeni L. Ya. Karpov)

SUBMITTED: June 9, 1960

Card 3/3

88731

The carbanionic mechanism of...

S/190/61/003/001/015/020
B119/B216

methyl alcohol and the styrene copolymers by a heptane - ether mixture. The copolymers were microanalyzed for C, H and N. In some cases the results were checked by infrared spectroscopy. At -78°C , and a dose rate of 128 rad/sec, the polymerization rate of acrylonitrile (initial concentration 3.5 mol/l) was $1.57 \text{ mol/l}\cdot\text{sec}\cdot 10^6$ in isopropyl amine, $6.7 \text{ mol/l}\cdot\text{sec}\cdot 10^6$ in triethyl amine, $9.7 \text{ mol/l}\cdot\text{sec}\cdot 10^6$ in dimethyl formamide and $2.1 \text{ mol/l}\cdot\text{sec}\cdot 10^6$ in the "bulk". The copolymerization constants were $r_1 = 33$ (acrylonitrile), $r_2 = 0.005$ (styrene). Results: Acrylonitrile polymerization occurs only in the solvents dimethyl formamide, triethyl amine and isopropyl amine, but not in solvents with electron acceptor properties. The composition of the copolymers obtained at -78°C by the above method and that of the analogous copolymers prepared by a radical reaction exhibit significant differences. The polymerization rate of acrylonitrile increases proportionately with the dose rate. A reduction of the reaction temperature from -50 to -112°C produces a great increase of reaction rate and molecular weight. The findings indicate a carbanionic reaction mechanism. The authors thank Ya. A. Tsarfin and K. G. Nogteva, both at Vladimirskiy nauchno-

Card 2/3

88731

S/190/61/003/001/015/020
B119/B216

11.2210

AUTHORS: Mezhirova, L. P., Sheynker, A. P., Abkin, A. D.

TITLE: The carbanionic mechanism of polymerization under the action of gamma rays

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 1, 1961, 99-104

TEXT: The present work studies the polymerization of acrylonitrile and its copolymerization with styrene under the action of γ -radiation at low temperatures for the purpose of explaining the reaction mechanism. Co^{60} was used as radiative source. The experimental temperatures ranged from -50 to -112°C. Polymerization was performed in the solvents dimethyl formamide, triethyl amine, isopropyl amine, acetone, toluene, acetonitrile, propionitrile, ethyl chloride, heptane, ethyl acetate. The reaction rate was measured dilatometrically. (The volume change of the reaction mixture during polymerization was measured by the change of electric resistance of a platinum wire and a mercury thread inside the dilatometer capillary). The acrylonitrile polymers were separated from their solutions by means of

Card 1/3

February 24, 1960

MEZHIROVA, L. P., ABKIN, A. D., SHEYNKER, A. P., YAKOVLEVA, M.K.

"On the carbonium and carbonion mechanisms of gamma-ray induced polymerization."

report presented at the International Polymer Symposium, (IUPAC), Moscow, USSR, 14-18 June 1960.

MEZHIROVA, L.P.

International symposium on macromolecular chemistry. Moscow, 1960.

Mezhdunarodnyy simpozium po makromolekulyarnoy khimii, SSSR, Moskva, 14-18 iyunya 1960 g.; doklady i svetodopisy. Seriya II. (International Symposium on Macromolecular Chemistry. Held in Moscow, June 14-18; Papers and Summaries) Section II. [Moscow, Izd-vo AN SSSR, 1960] 599 p. 5,500 copies printed.

Sponsoring Agency: The International Union of Pure and Applied Chemistry, Commission on Macromolecular Chemistry

Tech. Ed.: T.A. Prusabova.

PURPOSE: This book is intended for chemists interested in polymerization reactions and the synthesis of high-molecular compounds.

CONTENTS: This is Section II of a multivolume work containing papers on macromolecular chemistry. The papers in this volume treat mainly the kinetics of various polymerization reactions initiated by different catalysts or induced by radiation. Among the research techniques discussed are electron paramagnetic resonance spectroscopy and light-scattering interpretation. There are summaries in English, French and Russian. No personalities are mentioned. References follow each article.

Mezhdunarodnyy simpozium po makromolekulyarnoy khimii. On the Mechanism of the Polymerization Reaction of Stereoregular Polymers

Singh, A., and G. Chyres (Hungary). On the Kinetics of a Reaction on Zeolite Catalysts 302

Viktorov, G., M. Merv, and I. Trakoml (Czechoslovakia). Kinetics of the Polymerization of Isobutylene on a Heterogeneous Catalyst 310

Bolek, V. (Czechoslovakia). Heterogeneous Catalysts for the Polymerization of Alpha Olefins 302

Vesely, K., I. Jandak, B. Villy, and J. Hradil (Czechoslovakia). The Effect of Polar Type Impurities on the Polymerization of Propylene. Catalyzed by the System Titanium Trichloride-Triethylaluminum 330

Polymerization, P.A. (USSR). Study of the Factors Leading to the Degradation of Chain Structure During the Ionic Polymerization of Dienes 357

Yermolinskii, B.L., Vlas Ponomarev, and A.P. Kuznetsov (USSR). Study of the Interaction of Organomagnesium Compounds with Salts of Heavy Metals and the Use of Organomagnesium Compounds and Their Complexes to Stimulate Polymerization 346

Saito, I., and I. Ogi (Hungary). The Effect of Organic Inner Complexes of Some Metals of Variable Valence on the Kinetics of the Polymerization of Vinyl Compounds 355

Bresler, S.Ye., M.I. Moskvitskiy, I.Ye. Polubnyy, and Shih Kung-i (USSR). Study of Some Details of the Mechanism of Polymerization Under the Action of Complex Catalysts 365

Tsvetkov, V.M., S.G. Maslennik, N.S. Borozdina, and M.G. Gumeny (USSR). Stereospecificity and the Optical Properties of Polymers 372

Birskaya, T.M., Yu. Ye. Gontib, and O.B. Polubnyy (USSR). The Microviscosity of Polymers and Methods of Study 373

Abbin, A.D., A.P. Sviridov, M.K. Pavlov, and D.P. Mikhaylov (USSR). On Carbonium and Cationic Polymerization Mechanisms Under the Effects of Gamma Radiation 388

Kargin, V.A., and V.A. Kabanov (USSR). Polymerization Processes in Insoluble Molecular Dispersions 410

Michalski, Z., J. Molyk, and J. Pils (Czechoslovakia). Kinetics of the Polymerization of Formaldehyde 453

Vesely, K. (Czechoslovakia). On the Mechanism of Ionic Polymerization 253

Klinal, Z., and A. Kralis (Czechoslovakia). On the Role of Fucopolar Compounds in the Cationic Polymerization of Isobutylene 262

272 45

66876

SOV/76-33-11-47/47

On the "Carbanion" Mechanism of the Polymerization Under the Effect of Gamma Rays

of gamma rays, show that the polymerization of the acrylic acid nitrile in solving agents with electron donor substituents (triethyl amine, dimethyl formamide) occurs and that none occurs in ethyl chloride (which is usually used for carbonium polymerization) containing electrophilic groups. Contrary, styrene polymerizes only in ethyl chloride. These data show that acrylic acid nitrile, which has molecules containing electronegative groups, polymerizes, under the given conditions, not according to the radical mechanism, but according to the "carbanion" mechanism. It is mentioned that more detailed results of the investigations carried out will be published later and that the authors thank Academician S. S. Medvedev. There are 1 table and 3 references, 2 of which are Soviet.

5.3831

66876

SOV/76-33-11-47/47

5(4)
AUTHORS:

Abkin, A. D., Sheynker, A. P., Mezhirova, L. P.

TITLE:

On the "Carbanion" Mechanism of Polymerization Under the Effect of Gamma Rays 19

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 11, p 2636 (USSR)

ABSTRACT:

Data from publications (Ref 1) on the polymerization of isobutylene, and data of the joint polymerization of isobutylene with vinylidene chloride and of the styrene with methyl methacrylate, obtained by the authors (Ref 2) show that at low temperatures and influenced by nuclear radiation, the polymerization occurs according to the carbonium mechanism. Up to present there is no information in publications on the course of a "carbanion" mechanism at the polymerization under the influence of nuclear radiation. It has been established that the polymerization may proceed according to both mechanisms (carbonium or "carbanion" mechanism) and that this is not determined by the chemical structure of the monomers, but by the nature of the medium. Data on the polymerization of acrylic acid nitrile and styrene at -78°C (Table) under the influence

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~~MEZHIROVA, L.P.~~; YAKOVLEVA, M.K.; MATVEYEVA, A.V.; ABKIN, A.D.; KHOMIKOV-
SKIY, P.M.; MEDVEDEV, S.S.

Polymerization in emulsions under the action of γ -radiation.
Vysokom.socd. 1 no.1:68-72 Ja '59. (MIRA 12:9)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova.
(Polymerization) (Gamma rays)

GRANDO, Aleksandr Abramovich [Grando, O.A.]; MEZNIROV, Leonid
Semenovich [Mezhyrov, L.S.]; STARCHENKO, S.M.; red.

[History of hygiene and sanitation in the Ukraine;
bibliographical index] Istorii higieny ta sanitarii na
Ukraini; bibliografichnyi pokazhechuk. Kyiv, Vyd-vo
"Zdorov'ia," 1964. 123 p. (MIRA 17:12)

MEZHIROV, L.S.

GRANDO, A.A., kandidat meditsinskikh nauk (Kiyev); MEZHIROV, L.S. (Kiyev)

Medical problems in "Sovremennik." Vrach. delo no.1:97-99 Ja '57
(MIRA 10:4)

(MEDICINE--PERIODICALS--HISTORY)

I 12580-65

ACCESSION NO. AP501317

Various ρ^* vs r^* curves are shown in graphs, where r^* is the surface of mass displacement and ρ^* is the core surface. Further, the total pressure losses in a hypersonic wind tunnel with an Eiffel chamber and also at the nozzle start-up are investigated. On the basis of the results obtained, it is concluded that the magnitude of ρ^* depends weakly on the position of shock wave in the nozzle at sufficiently large Mach numbers. This means that at nozzle start-up an insignificant increase in pressure is required in the forechamber to displace the shock wave from the inlet to the nozzle exit. Orig. art. has: 5 figures and 14 formulas. [AB]

ASSOCIATION: none

SUBMITTED: 14 Aug 64

ENCL: 01

SUB CODE: ME

NO REF SOV: 002

OTHER: 002

ATD PRESS: 3236

Card 2/3

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ACCESSION NR AP5011317

UR/0258/65/005/002/0243/0248

AUTHOR: Kashirov, I. I. (Moscow)

TITLE: On total pressure losses in a hypersonic wind tunnel

SOURCE: Inzhenernyy zhurnal, v. 5, no. 2, 1965, 243-248

TOPIC TAGS: hypersonic flow, boundary layer, momentum loss, energy loss, pressure loss, nozzle, Riffel chamber, pressure recovery factor, wind tunnel

ABSTRACT: The total pressure recovery factor is evaluated in a flow equivalent to a one-dimensional flow with a straight shock wave in order to calculate the pressure losses in a hypersonic wind tunnel due to the presence of a thick boundary layer on the walls. As an analog to this flow, an inviscid, non-heat-conducting gas flow is considered in a cylindrical duct whose inlet has the same distribution of flow parameters as the output cross section of the nozzle and at its output, a one-dimensional subsonic flow (see Fig. 1 and sections 1 and 2 of the Enclosure). The flow parameters in sections 1 and 2 are described by equations of energy and momentum loss; the flow is assumed to be one-dimensional and isentropic in the inviscid flow core in section 1. An expression for the total pressure recovery factor is established, and its dependence on the Mach number calculated for

Card 1/32

S/207/62/000/003/015/016
I028/I228

AUTHOR: Mezhistrov, I. I. (Moscow)

TITLE: Calculation of the one-dimensional flow in a variable-section duct in the presence of friction and heat exchange

PERIODICAL: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 3, 1962, 92-95

TEXT: The influence of the frictional forces and the heat exchange on the gas pressure is investigated; the problem of finding a law of variation of the duct section ensuring a given distribution of the M numbers for a given law of heat exchange is solved; the law of variation of the total gas temperature ensuring a given distribution of the M numbers in a duct of given shape is determined; a numerical method of calculation of the distribution of the M numbers along a duct of given shape for a given law of heat exchange is described. All calculations are based on the assumption of one-dimensional flow.

SUBMITTED: February 13, 1962

Card 1/1

MEZHIROV, I.I. (Moskva)

Imperfect-gas flow in the presence of heat transfer. Izv.AN SSSR.Otd.
tekhnauk.Mekh.i mashinostr. no.3:184-185 My-Je '61. (MIRA 14:6)
(Fluid dynamics) (Heat-Transmission)

MEZHIROV, I.I. (Moskva)

Gas flow in a canal in the presence of heat exchange. Izv. AN
SSSR. Otd. tekhn. nauk. Mekh. i mashinostr. no. 1:102-106 Jan-F '61.
(MIRA 14:2)

(Fluid dynamics)

(Heat--Transmission)

Turbulent Boundary Layer for an Imperfect,
Compressible Gas

77985
SOV/40-24-1-13/28

A formula is obtained generalizing the usual relation for N . The author states that this form is more useful in questions of heat exchange between the wall and stream since certain relations which follow from the basic equations do not change the form of N . There is 1 figure; and 2 references, 1 Soviet, 1 German.

SUBMITTED: May 6, 1959

Card 4/4

Turbulent Boundary Layer for an Imperfect,
Compressible Gas

77985
SOV/40-24-1-13/28

body, and both the Prandtl number and Prandtl turbulent mixing number equal to one, I is equal to its value outside the boundary layer. Several graphs are given depicting how the enthalpy for dissociated air varies with the temperature for different values of the pressure. A second example considers the temperature constant and $u = 0$ on the body, the pressure constant, and the Prandtl numbers again unity. A formula is given relating I , its values on the wall and outside the boundary layer, to u and its value at infinity. This is used to show that the Nusselt number and Reynolds number are related by:

$$N = \frac{1}{2} Re_I \quad (2.4)$$

where c_f is frictional coefficient. An approximate relationship is given between I and the speed in the case of a stationary turbulent boundary layer near a plate for Prandtl numbers which are not unity and for constant pressure and constant temperature on the plate.

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Turbulent Boundary Layer for an Imperfect,
Compressible Gas

77935
SOV/40-24-1-13/28

i , enthalpy; e , internal energy; J , mechanical equivalent of heat. Pulsational quantities higher than second order are omitted. Terms depending on the thermal conductivity and viscosity have first been omitted from (1.1) because their time averages are small in comparison with the remaining quantities. The boundary layer equations are then obtained by taking such quantities into account while neglecting derivatives in the direction along the body in comparison with derivatives normal to the body, and neglecting quantities of the order of v^0 in comparison with u^0 . The velocity components u^0 and v^0 are the ratios of the corresponding averaged mass flux and average density. After some additional manipulations, the energy equation obtained differs from that for a perfect gas only in that the averaged temperature is replaced by the averaged enthalpy. The other equations have the same form as when averaged for a perfect gas. The author then gives some particular examples. For stationary motion with no heat transfer between the body and gas, the pressure arbitrary on the

Card 2/4

16.7600

77985
SOV/40-24-1-13/28

AUTHOR: Mezhistrov, I. I. (Moscow)

TITLE: Turbulent Boundary Layer for an Imperfect, Compressible Gas

PERIODICAL: Prikladnaya matematika i mekhanika, 1960, Vol 24, Nr 1, pp 93-99 (USSR)

ABSTRACT: Averaged turbulent boundary layer equations for the flow of an imperfect, compressible gas about a body are derived. Starting from the continuity equation, the equation of motion, and energy equation:

(1.1)

$$\frac{\partial}{\partial t}(\rho I) + \frac{\partial}{\partial x}(\rho u I) + \frac{\partial}{\partial y}(\rho v I) = \frac{1}{J} \frac{\partial p}{\partial t} \left(I = i + \frac{u^2 + v^2}{2J}, \quad i = e + \frac{1}{J} \frac{p}{\rho} \right) ;$$

for the plane turbulent motion of a real gas, the author replaces all quantities by the sum of an averaged component and pulsational component and time-averages these equations. Here, ρ is density; p , pressure;

Card 1/4

SOV/24-58-9-19/31
On the Flow of Gas in a Cylindrical Tube in the Presence of
Friction and Heat Transfer

There are 3 figures and 4 Soviet references.

SUBMITTED: March 6, 1958

Card 2/2

AUTHOR: Mezhistrov, I.I. (Moscow)

SOV/24-58-9-19/31

TITLE: On the Flow of Gas in a Cylindrical Tube in the Presence of Friction and Heat Transfer (O techenii gaza v tsilindricheskoy trube pri nalichii treniya i teploobmena)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 9, pp 118 - 120 (USSR)

ABSTRACT: One dimensional flow of gas in a cylindrical tube in the presence of friction and heat transfer was considered by a number of authors (Ref 1-4). The majority of these papers were limited to numerical or approximate integration of the equations to which the problem may be reduced. Only in Refs 3 and 4 were accurate solutions obtained for the case of heat transfer through the wall of the tube, The present paper gives examples of accurate solutions and a method for numerical integration of the main equation. The problem is solved in the following cases: a) when the velocity or the kinetic energy density as a function of distance along the tube is given; b) when the reduced velocity is given as a function of distance along the tube.

Card1/2

SAKOVICH, V., inzh.; MEZHIRITSKIY, Yu. [Mezhyryts'kyi, IU.], inzh.;
MINTS, G. [Mints, H.], inzh.

Dismountable flange fittings for steel forms for making
reinforced concrete construction elements. Bud.mat. i konstr.
2 no. 1:59 F '60. (MIRA 13:6)
(Concrete construction--Formwork)

BIRKENFELD, K.G.; MEZHIRITSKIY, L.M.; CHERNIKIN, V.I.

Studying finned double-pipe heat exchangers. Trudy MMI no.23:
150-157 '58. (MIRA 12:1)
(Heat exchangers)

Petroleum Bulk Plant Receiving and Delivering (Cont.)

SOV/2642

Considerable attention is paid to measuring operations, prevention of petroleum product losses, fire precautions, safety measures, and petroleum product registration and recording. The book contains numerous illustrations, tables and designs of equipment used for petroleum product storage, measurement, and transportation. It also shows samples of accounting and registration records. No personalities are mentioned. There are 12 references, all Soviet.

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Importance of bulk plants for the national economy	7
Brief information on transportation and storage of petroleum products	7
Possibilities of developing petroleum product storage and transportation techniques	8

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PHASE I BOOK EXPLOITATION

SOV/2642

Mezhiritskiy, Leonid Mikhaylovich

Priyemo-sdatchik neftebazy (Petroleum Bulk Plant Receiving and Delivering Attendant) 2d ed., rev. and enl. Moscow, Gostoptekhizdat, 1958. 238 p.
4,500 copies printed.

Exec. Ed.: K. P. Svyatitskaya; Tech. Ed.: E. A. Mukhina.

PURPOSE: This book is intended for the personnel of petroleum bulk plants and terminals. It may be also used as textbook for training bulk plant staff members who receive and deliver petroleum products.

COVERAGE: The book offers the information essential for the day-to-day work of personnel of petroleum bulk plants and terminals who handle the reception and delivery of petroleum products. It describes bulk plant equipment and operations, petroleum product storage, transportation, loading, and unloading, and gives the specifications of various petroleum products. Planning of a petroleum bulk plant and the distribution of equipment over its territory is described and illustrated. Petroleum containers, tank cars, tank trucks, tankers and their equipment, as well as pipelines, are also reviewed.

Card 1/8

MEZHIRITSKIY, L.M.

Regulating the accounting for petroleum products on tank farms.
Transp. i khran. nefti i nefteprod. no.7:18-20 '64.
(MIRA 17:8)

1. Moskovskoye upravleniye Glavnogo upravleniya po transportu i
snabzheniyu nef'tyu i nefteproduktami RSFSR.

MEZHIRITSKIY, B.L.

Our practice in diamond grinding of cutting tools. Mashinostroitel'
no.7:31 J1 '65. (MIRA 18:7)

VASIL'YEV, A. (Kiyev); MEZHINSKIY, Yu. (Kamensk-Rostovskiy)

Simple method for making a cone. Radio no. 6:51 Je '63.
(MIRA 16:7)

(Loudspeakers)

MEZHIKOVSKIY, S.M. [Mezhykovs'kyi, S.M.]

Types, grades and defects of natural rubber used in international trade. Khim. prom. [Ukr.] no.3:85-87 J1-S '63. (MIRA 17:8)

MEZHIKOVSKIY, S.M. [Mezhikovs'kiy, S.M.]

Effect of the formula of the rubber compound on the mechanical
Strength of stamped seams. Khim. prom. [Ukr.] no.18-10 Ja-Ma'68
(MIRA 17:7)

34290

S/138/60/000/006/007/008
A051/A029

The Effect of Certain Factors on the Resistance of a Punched Seam

ensure the best conditions for diffusion of the polymer macromolecules during the punching process. There are 6 figures, 9 tables and 5 references: 4 Soviet and 1 English.

14

Card 3/3

84290

S/138/60/000/006/007/008
A051/A029

The Effect of Certain Factors on the Resistance of a Punched Seam

extent of pressure of the punch on the plate, the rate of punching, the punching temperature, etc; 2) factors associated with the type and shape of the punch seam; 3) factors changing the chemical composition of the polymers or affecting their chemical bonds. The method used for punching and the temperature of the punch do not affect the resistance of the seam. It was established that the resistance of the punch seam depends on the position of the seam relative to the direction of the calendaring of the plate. With an increase in the caliber the resistance of the seam increases, reaching its maximum at 1.50 mm. The cause of this phenomenon is still undetermined. The seams were also subjected to stretching. It can be seen from Table 8 that the optimum condition appeared at a tension of 15% during vulcanization. It was found that the highest resistance of the seam was achieved with the application of zinc stearate powder, the lowest with talc. The effect of the plasticity of the mixture on the quality of the seam was investigated, with the results shown in Figure 6. Further articles will be published on the subject of selecting the most suitable composition of the rubber mixture based on different rubbers which would

Card 2/3

04270

15.9300

2100, 1000, 1000

S/138/60/000/006/007/000
A051/A029

AUTHORS: Bel'skaya, Yu.R., Zateyev, V.S., Mezhevikskiy, S.M.

TITLE: The Effect of Certain Factors on the Resistance of a Punched Seam

PERIODICAL: Kauchuk i Rezina, 1960, No. 6, pp. 47 - 52.

TEXT: The results of work carried out on the investigation of effects caused by various factors on the mechanical resistance of the seam in rubber articles are listed. The effects of the physical and chemical factors were studied in addition to factors associated with the type and shape of the punched seam on the resistance of the rubber plate. The mechanism of the formation of the seam is explained from the point of view of the autohesion theory. It is shown that the processes which take place during punching confirm the diffusion nature of the autohesion of high polymers. The optimum conditions for punching of the articles are determined, which are produced from natural rubber plus CKB (SKB) based calendered rubber. Factors affecting the resistance of the seam were divided into three groups: 1) factors connected with the physical state of the polymers;

Card 1/3

MEZHIDOVA, N. N., KONOVIK, I. L., SVETNIKOVA, N. P., MITROMANOV, V. I.

"Two types of leptospirosis foci in the Checheno-Ingush ASSR." p. 182

Doklady Sovetskoye na parazitologicheskie problemy i
prirodnosobagovym belaznyam. 22-29 Okiyabrya 1959 g. (Tenth Conference
on Parasitological Problems and Diseases with Natural Foci 22-29
October 1959), Moscow-Leningrad, 1959, Academy of Medical Sciences
USSR and Academy of Sciences USSR, No. 1 254 p.

Do+

Inst. of Epidemiology and Microbiology, AMS USSR/ Moscow
and REPUBLIC Sanitary-Epidemiological Station of the Checheno-Ingush ASSR

PA - 2415

AUTHOR
TITLE

MEZHIBOZHSKIY M.Ya., cand.tech.sc., SOKOLOV I.A., eng.
Rise of Open-Hearth Bath Temperature in the case of Blowing
in Compressed Air. (Povysheniye temperatury martenovskoy vannyy
pri vduvanii szhatogo vozdukha. Russian)
Stal' 1957, Vol 17, Nr 3, pp 220-227 (U.S.S.R.)
Received: 5/1957

PERIODICAL

ABSTRACT

Reviewed: 5/1957
The calculation of the heat effects of the reactions on the
occasion of the oxidation of carbon were precisely given;
up-to-date thermochemical constants were more widely used
and relatively exact quantitative data on the influence of
air blowing into the open-hearth bath at a rise of the
temperature of the metal were obtained by means of a per-
fected apparatus. The results of theoretical calculations
were given i.e. on the oxidation of carbon by gaseous oxygen,
on the heating of the trough in connection with this process,
and on the cooling effect of additions of ore and calcium.
The experimental results are then dealt with. The temperature
measurements of the metal by means of a thermo-element showed
that a much more intense rise of temperature occurs when
compressed air is blown into the open-hearth bath than is the
case of usual boiling. The rate of the temperature rise

CARD 1/2

MEZHIBOVSKIY, R.

Moving-picture Projectors

Connecting two amplifying devices for parallel work.
Kinomekhanik no. 12, 1952

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Uncl.

MEZHIBOVSKIY, A., instruktor zvukovogo kino (Moscow).

Motion-picture projector reeler with two pulleys for parallel belt action.
Kinomekhanik no.9:32 S '53. (MLRA 6:9)

(Moving-picture projectors)

MEZHIBORSKIY, Petr Markovich; VOLOSHCHENKO, Z.N., red.; LEUSHCHENKO,
N.L., tekhn. red.

[Tables for hydraulic calculation of pressure reinforced
concrete water pipes] Tablitsy dlia gidravlicheskogo ras-
cheta napornykh zhelezobetonnykh vodoprovodnykh trub. Kiev,
Gosstroizdat USSR, 1963. 117 p. (MIRA 17:2)

MEZHIBORSKIY, P.M.

"Tables and nomograms for the hydraulic calculation of plastic
pipes" by M.M.Sapozhnikov and others. Reviewed by P.M.Mezhiborskii.
Vod. i san. tekhn. no.2:40 F '62, (MIRA 15:2)
(Pipe, Plastic) (Sapozhnikov, M.)

MEZHIBORSKIY, P.M., inzhener.

Tables for hydraulic calculations of pipelines. Gidr.stroi. 22 no.5:40-
41 M '53. (MLRA 6:6)
(Pipe)

MEZHIBORSKIY, P.M.

[Hydraulic calculation tables for asbesto-cement water pipes] Tablitsy dlia gidravlicheskogo rascheta asbestotsementnykh vodoпроводnykh trub. Moskva, Gos.izd-vo lit-ry po stroitel'stvu i arkhitekture, 1953. 30 p.

(MLRA 6:7)

(Hydraulic engineering--Tables, calculations, etc.)

1. MEZHIBORSKIY, P.
2. USSR (600)
4. Pipe
7. Technical and economic indexes of asbestos cement and cast iron pipes.
Ahil.-kom. khoz. 2 No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

1Y
MEZHIBORSKY, M.B.

[Diseases of the heart; causes, treatment, and prevention] Khvoroby
sertsia; prychyny, likuvannia, zapobigannia. Kyiv, [Derzhmedvydav] 1946.
30 p. (MIRA 11:10)

(HEART--DISEASES)

VAYNSHTOK, I.B., kand.med.nauk; MEZHIBORSKAYA, V.M., kand.med.nauk

Development of a liking for nembutal and barbamy1. Vrach. delo
no.12:132-133 D '60. (MIRA 14:1)

1. Kafedra nervnykh bolezney (zav. - akademik AMN SSSR, prof.
B.N.Man'kovskiy) Kiyevskogo meditsinskogo instituta.
(BARBITURATES)

MEZHIBORSKAYA, V.M., kand.med.nauk

Early differential diagnosis of hemorrhagic meningoencephalitis and
alcoholic intoxication. Vrach.delo no.10:122-123 O '60. (MIRA 13:11)

1. Kafedra nervnykh bolezney (zav. - deystvitel'nyy chlen AMN SSSR,
prof. B.N.Man'kovskiy) Kiyevskogo meditsinskogo instituta imeni
akademika Bogomol'tsa.
(ENCEPHALITIS)
(ALCOHOLISM)

MATVEYEV, G.; MEZHIBORSKAYA, S.

Improve the establishment of norms for working capital in
commerce. Den. i kred. 21 no.12:20-26 D '63.
(MIRA 17:1)

BARKOVSKIY, N.D.; CHERNYSHOVA, T.A.; MORSIN, V.I.; VSESVIYATSKAYA,
N.V.; ~~MEZHIBORSKAYA, S.B.~~; MISEYUK, K.A.; BOROZDIN, B., red.;
NADEZHDINA, A., red.; TELEGINA, T., tekhn. red.

[The organization and planning of credit] Organizatsiia i plani-
rovanie kredita. Moskva, Gosfinizdat, 1962. 298 p.
(MIRA 16:3)

(Credit)

MATVEYEV, G.; MEZHIBORSKAYA, S.

Improve the procedure for supplying credit to trade organizations.
Den.1 kred. 19 no.10:35-43 0 '61. (MIRA 14:10)
(Credit) (Retail trade)

MEZHIBORSKAYA, S.

Features in the planning of credit for trade, marketing, and supply organizations. Den. i kred. 17 no.1:73-81 Ja '59. (MIRA 12:4)
(Credit)

MEZHIBORSKAYA, S.; MOSHKOVICH, Ye.

New developments in extending credit to commerce. Don.1 kred.
14 no.1:27-32 Ja '56. (MLRA 9:5)
(Credit)

Radioactivation (photoneutron)...

S/081/61/000/024/025/086
B138/B102

[Abstracter's note: Complete translation.]

Card 2/2

S/081/61/000/024/025/06
B138/B102

AUTHOR: Mezhiborskaya, Kh. B.

TITLE: Radioactivation (photoneutron) method of determining beryllium

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1961, 149, abstract 24D51 (Sb. "Radioakt. izotopy i yadern. izlucheniya v nar. kh-ve SSSR, v. 4", M., Gostoptekhizdat, 1961, 154 - 156)

TEXT: The apparatus Φ HM-2 (FNM-2) is described, which is designed for the photoneutron method of determining beryllium in undressed minerals and in the products of hydrometallurgical processing. Sb^{124} (100 μ curies) is used as the γ source, with the test specimen and moderator arranged coaxially with it. The neutron detector is a boron counter. Methods have been developed for excluding the effect of neutron absorption by other components of the specimen: restricting the size of the sample, extrapolation to the zero layer and the internal standard method. The sensitivity of the method is 0.001 - 0.002% BeO for a 100 g sample. Analysis takes 10 to 15 min. Root-mean-square error is 15 - 20, 10 - 15 and 3 - 10% for BeO concentrations of ~ 0.001 , 0.01 and $> 0.01\%$ respectively.

Card 1/2

AOR:

TITLE:

PERIODICAL:

Mezhiborskaya, Kh. B.
Radioactivation (photoneutron) method of determining
beryllium

S/081/61/000/024/025/06
B138/B102

TEXT: The apparatus Φ HM-2 (FNM-2) is described, which is designed for the photoneutron method of determining beryllium in undressed minerals and in the products of hydrometallurgical processing. Sb124 (100 μ curies) is used as the γ source, with the test specimen and moderator arranged coaxially with it. The neutron detector is a boron counter. Methods have been developed for excluding the effect of neutron absorption by other components of the zero layer: restricting the size of the sample, extrapolation to the method is 0.001 - 0.002% BeO for a method. The extra-sensitivity takes 10 to 15 min. Root-mean-square error is 15 - 20, 10 - 15 and 3 - 10% for BeO concentrations of $\sim$ 0.001, 0.01 and $>$ 0.01% respectively.
Card 1/2

Radioactive Isotopes and Nuclear (Cont.)	SOV/5592	14
Problems		133
Zolotov, A. V. Critical Dimensions of an Artificial Bed for the Simulation of Radioactive Methods of Borehole Investigation		139
Sokolov, M. M., A. P. Ochkur, A. A. Fedorov, A. Yu. Bol'shakov, and P. P. Knitev. Application of the Method of Scattered Gamma Radiation for the Investigation of Ore Holes		146
<u>Mazhiborskaya, Kh. B.</u> Radioactivation (Photoneutron) Method for Determining Beryllium		154
Yakubson, K. I. On the Possibility of Activation by Fast Neutrons Under Borehole Conditions		157
Sen'ko, A. K. Photoneutron Method of Prospecting, Exploration, and Sampling of Beryllium Ores		163
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Card 7/11		

Radioactive Isotopes and Nuclear (Cont.)

SOV/5592

development of radioactive methods used in prospecting, surveying, and mining of ores. Individual reports present the results of the latest scientific research on the development and improvement of the theory, methodology, and technology of radiometric investigations. Application of radioactive methods in the field of engineering geology, hydrology, and the control of ore enrichment processes is analyzed. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

Alekseyev, F. A. Present State and Future Prospects of Applying the Methods of Nuclear Geophysics in Prospecting, Surveying, and Mining of Minerals	5
Bulashevich, Yu. P., G. M. Voskoboinikov, and L. V. Mazyukin. Neutron and Gamma-Ray Logging at Ore and Coal Deposits	19
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Card 3/11

Radioactive Isotopes and Nuclear (Cont.)

SOV/5592

Tech. Ed.: A. S. Polovina.

PURPOSE : The book is intended for engineers and technicians dealing with the problems involved in the application of radioactive isotopes and nuclear radiation.

COVERAGE: This collection of 39 articles is Vol. 4 of the Transactions of the All-Union Conference of the Introduction of Radioactive Isotopes and Nuclear Reactions in the National Economy of the USSR. The Conference was called by the Gosudarstvennyy nauchno-tekhnicheskii komitet Sovet Ministrov SSSR (State Scientific-Technical Committee of the Council of Ministers of the USSR), Academy of Sciences USSR, Gosplan SSSR (State Planning Committee of the Council of Ministers of the USSR), Gosstatizvernyy komitet Soveta Ministrov SSSR po avtomatizatsii i mashinostroyeniyu (State Committee of the Council of Ministers of the USSR for Automation and Machine Building), and the Council of Ministers of the Latvian SSR. The reports summarized in this publication deal with the advantages, prospects, and

Card 2/11

MEZHIBORSKAYA, Kh B.

PHASE I BOOK EXPLOITATION SOV/5592

Vsesoyuznoye soveshchaniye po vnedreniyu radioaktivnykh izotopov i yadernykh izlucheniya v narodnom khozyaystve SSSR. Riga, 1960.

Radioaktivnyye izotopy i yadernyye izlucheniya v narodnom khozyaystve SSSR; trudy Vsesoyuznogo soveshchaniya 12 - 16 aprelya 1960 g. g. Riga, v 4 tomakh. t. 4: Poiski, razvedka i razrabotka poleznykh iskopayemykh (Radioactive Isotopes and Nuclear Radiation in the National Economy of the USSR; Transactions on the Symposium Held in Riga, April 12 - 16, 1960, in 4 volumes. v. 4: Prospecting, Surveying, and Mining of Mineral Deposits) Moscow, Gostoptekhizdat, 1961. 284 p. 3,640 copies printed.

Sponsoring Agency: Gosudarstvennyy nauchno-tekhnicheskyy komitet Soveta Ministrov SSSR. Gosudarstvennyy komitet Soveta Ministrov SSSR po ispol'zovaniyu atomnoy energii

Eds. (Title page): N. A. Petrov, L. I. Petrenko, and P. S. Savitskiy; ed. of this volume: M. A. Speranskiy; Scientific ed.: M. A. Speranskiy; Executive Eds.: N. N. Kuz'mina and A. G. Ionel;

Card 1/11

MEZHIBORSKAYA, Khaisa Borisovna; PCHELINTSEVA, G.M., red.; VLASOVA, N.A.,
tekh. red.

[Photoneutron method for the determination of beryllium] Foto-
neitronnyi metod opredeleniia berillia. Moskva, Gos. izd-vo lit-ry v
oblasti atomnoi nauki i tekhniki, 1961. 50 p. (MIRA 14:7)
(Beryllium--Analysis) (Neutrons)

MEZHIBORSKAYA, Kh.B.

Radioactivation method of determining beryllium in mineral
raw materials and hydrometallurgy products. Zhur.anal.khim.
15 no.3:281-286 My-Je '60. (MIRA 13:7)
(Beryllium--Analysis)

MEZHIBORSKAYA, Kh.B.; SHASHKIN, V.L.; SHUMILIN, I.P.; PCHELINTSEVA, G.M.,
red.; VLASOVA, N.A., tekhn.red.

[Analysis of radioactive ores by the β and γ method] Analiz radio-
aktivnykh rud β - γ -metodom. Moskva, Izd-vo Glav.uprav.po ispol'-
zovaniyu atomnoi energii pri Sovete Ministrov SSSR, 1960. 63 p.
(MIRA 13:10)

(Radioactive substances) (Beta rays) (Gamma rays)

Radioactivation Assaying of Beryllium

SOV/89-6-5-12/33

sample of 5 g, BeO-determination may be carried out with an accuracy of up to $\sim 0.015\%$. For tests carried out in the laboratory, variant a) was found to be more satisfactory; in this case the sample and the paraffin layer are arranged so as to be coaxial. If this method is employed for elements with a large capture cross section for thermal neutrons, the samples and the standard preparation with 3, 8, and 15 mm thickness are measured, and herefrom extrapolation is carried out as to the "zero thickness" of the sample. There are 1 table and 3 references, 1 of which is Soviet.

SUBMITTED: December 12, 1958

21(4)

SOV/89-6-5-12/33

AUTHOR: Mezhiborskaya, Kh. B.

TITLE: Radioactivation Assaying of Beryllium (Radioaktivatsionnoye opredeleniye berilliya)

PERIODICAL: Atomnaya energiya, 1959, Vol 6, Nr 5, p 567 (USSR)

ABSTRACT: For 5 years (γ, n)-reaction has been used for the assaying of beryllium, and this method was found to be fully efficacious. Sb^{124} was used as γ -source. Two kinds of analysis were used: a) direct counting of the neutrons produced, b) activation of an indium detector. For variant a) the device SSh-3 is used, in which a proportional counter of the type SNM (filled with BF_3 , enriched B^{10}) is used. If a 200-300 mC γ -source is used, an indicating-sensitivity of $\sim 0.001\%$ Be is obtained with a weighed-in portion of ~ 200 g. Assaying takes 10-20 min. For variant b) a ~ 2 C source is inserted into a container in the interior of which a paraffin block is fitted. The weighed-in portion may vary between 5 and 100 g. The weight of the disk-shaped indium detector is ~ 25 g. The sample and the indium are irradiated for 45 min. The activities produced are measured by means of a γ -scintillation counter. With a weight of the

Card 1/2

A. MAY 16, E.

Use post for litter. Nauka i pered.op. v sel'khoz. 7 no.3:34-35 '57.
(MLRA 10:9)

1. Brigadir torfodobyvayushchey brigady uchebnogo khozyaystva
Laykhtsogo sel'skokhozyaystvennogo tekhnikuma.
(Litter (Bedding)) (Pent)

KOMKOVA, A.I.; FEDOROVA, N.A.; MEZHEYEVSKIY, T.

Phosphoprotein phosphatase from a hog's spleen. Biokhimiia 28 no.3:
482-485 My-Je '63. (MIRA 17:2)

1. Laboratory of Protein Chemistry, State University, Leningrad.

MEZHEVSKITY, V. M.

MEZHEVSKITY, V. M. -- "Methods of Increasing Interest in History and the Effect of This Interest on the Quality of the Pupils' Knowledge."
Academy of Pedagogical Sciences RSFSR. Sci Res Inst of Psychology.
Moscow, 1956.
(Dissertations for the Degree of Candidate in Pedagogical Sciences).

SO: Knizhnaya Letopis', No 9, 1956

MEZHEVSKAYA,

POLAND/Microbiology - Medical and Veterinary
Microbiology

F-6

Abs Jour : Ref Zhur-Biologiya, No 1, 1952, 738
Author : Parnas, Teyle, Kozlyak, Mezhevskaya
Inst :
Title : On the Reaction of Agglutination and
Complement Fixation in Complex Diagnosis
of Brucellosis.
Orig Pub : Ann. Univ. M. Curie-Sklodowska, 1953
(1954), D8, 89-100
Abstract : No abstract.

Card 1/1

NIKOLASKIY, L.M., doktor tekhn. nauk, prof.; GOLITSKIY, Yuliy Boris. dokt.
nauk, docent: POLYAKOV, P.D., stanshchik yegor'evskiy.

Method for cooperative selection of applications for insurance
for railroad rolling stock. Izv. vuz. zhurnal. tekhn. nauk.
122-133 1964. (Sov. 17:11)

1. Bryanskiy institut transportnoy mashinostroyeniya.

112-57-7-14903

Translation from: Referativnyy zhurnal, Elektrotehnika, 1957, Nr 7, p 157 (USSR)

AUTHOR: Nikol'skiy, L. N., and Mezhevoy, Yu. T.

TITLE: Method for Determining Amplitude-Frequency Characteristics of
Electrical Equipment Used for Recording Dynamic Processes in Machines and
Installations (Metod opredeleniya amplitudno-chastotnykh kharakteristik
elektro-apparatury, primenyayemoy dlya registratsii dinamicheskikh
protssessov v mashinakh i sooruzheniyakh)

PERIODICAL: Tr. Bezhitsk. in-ta transp. mashinostr., 1955, Nr 13, pp 107-111

ABSTRACT: An electromechanical generator is used for electric oscillations. It
consists of a disk rotating at various speeds and provided with sinusoidal teeth
and a console plate with pasted-on wire tenso-pickups.

F. Ye. T.

Card 1/1

MEZHEVOV, A.M., kand. tekhn. nauk

Closed cycle of a gasoline engine. Trudy LTITSBP no.10:129-
134 '62. (MIRA 16:8)

(Internal combustion engines—Testing)

L 18526-63

ACCESSION NR: AR3002959

(because of the higher thermal capacity and entropy level of a triatomic gas as compared to a diatomic gas); and the engine horsepower and indicated mean pressure of the cycle decrease only slightly (1-2%). Compared to the diatomic working gas, the indicated efficiency of a triatomic gas (after the substitution of carbon dioxide for nitrogen) decreases by about 20 to 25% in direct proportion to the increase in thermal capacity of the latter. Oxygen consumption per indicated horsepower increases in proportion to the decrease in the indicated engine efficiency.

DATE ACQ: 17Jun63

SUB CODE: FL

ENCL: 00

Card 2/2

L 18526-63

EPA/EWT(m)/BDS AEDC/AFTC/ASD/APGC Paa-4

ACCESSION NR: AR3002959

S/0273/63/000/005/0002/0002

SOURCE: RZh. Dvigateli vnutrennego sgoraniya. Otdel'nyy vypusk, Abs. 5.39.7

AUTHOR: Mezhevov, A. M.

TITLE: Closed cycle gasoline engine ²³

59

CITED SOURCE: Tr. Leningr. tekhnol. in-ta tsellyulozno-bum. prom-sti, vyp. 10, 1962, 129-134

TOPIC TAGS: gasoline engine, closed cycle, triatomic gas, diatomic gas, efficiency, thermal capacity, horsepower

TRANSLATION: A gasoline engine was converted into a closed cycle system and a study was made to evaluate the principal thermodynamic characteristics of its operation and to determine the dependence of the output power on the specific fuel consumption. The closed cycle was compared to the ordinary high speed combustion system with the following results: when nitrogen in air is replaced by carbon dioxide, the volume of the residual gases increases in proportion to the decrease in combustion temperature; the coefficient of volumetric expansion of the residual gases is about 8.2%; the cycle temperature and pressure decrease

Card 1/2

BRDLIK, P.M., kand. tekhn. nauk; MEZHEVNIKOV, B.S., inzh.

Calculating thermal properties of water covered roofs. From.
stroil. 42 no.3:42-45 '65. (MIRA 18:7)

BRDLIK, P.M.; MEZHEVNIKOV, B.S.

Unsteady thermal conditions in water-covered roofs. Inzh.-fiz.
zhur. 8 no.2:263-267 F '65. (MIRA 18:5)

1. Institut stroitel'noy fiziki, Moskva.

MEZHEVIKIN, V

RYZHOV, I.; MEZHEVIKIN, V., mashinist kombayna; USOV, A., mashinist kombayna.

Using comines in mining steeply inclined coal seams. Mast.ugl.3
no.10:13-14 0 '54. (MLRA 7:12)

1. Nachal'nik uchastka shakhty im. Rumyantseva kombinata
Stalinugol'.
(Coal-mining machinery)

KOLESHNIKOV, I.S., prof.; INKOLAYIN, V.R.; SOROKOV, E.P.; MEZHEVYKH, N.I.

Resection of the mediobasal segment of the lung. Vest. khir.
92 no.4:16-21 Ap '64 (MIRA 1881)

1. Iz gosptal'noy khirurgicheskoy kliniki (nachal'nik - prof. I.S. Kolesnikov) i kafedry operativnoy khirurgii i topograficheskoy anatomii (nachal'nik - prof. A.M. Mahomedov) Voenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova. Adres avtorov: Leningad, K-9, Botkinskaya ul, 27, gosptal'naya khirurgicheskaya klinika Voenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.

KOLESNIKOV, I.S.; YERMOLAYEV, V.R.; SOKOLOV, S.N.; MEHEVIKIN, N.I.

Resection of the basal segments of the lungs. Onco, khir. 5
no.5:46-51 8-9 '63. (MIR) 17.8;

1. Iz kafedry gospi'tal'noy khirurgii (nachal'nik - prof. I.S. Kolesnikov) Voenno-meditsinskoy ordena Lenina akademii imeni Kircva. Adres avtorov: Leningrad 8-9, Bol'shaya ... d.23, Klinika gospi'tal'noy khirurgii Voenno-meditsinskoy ordena Lenina akademii.

KOLESNIKOV, I. S.; SOKOLOV, S. N.; MEZHEVIKIN, N. I.

Basic variations in the segmental arteries of the upper lobe of the right lung as applied to segmentectomies. Grud. khir. no.4:61-65 '61. (MIRA 14:12)

1. Iz kafedry gosptal'noy khirurgii (nach. - chlen-korrespondent AMN SSSR prof. A. N. Maksimenkov) Voenno-meditsinskoy ordena Lenina akademii imeni S. M. Kirova.

(PULMONARY ARTERY--SURGERY) (LUNGS--BLOOD SUPPLY)

KOLESNIKOV, I.S.; SOKOLOV, S.N.; MEZHEVIKIN, N.I.

Basic variants of the veins in the superior lobe of the right lung and some problems in segmental resections of the lung in connection with disorders of the venous outflow. Grud.khir. 3 no.6:62-69
N-D '61. (MIRA 15:3)

1. Iz kafedry gosptal'noy khirurgii Voyenno-morskoy ordena Lenina akademii (VMOLA) imeni S.M. Kirova (nach. - prof. I.S. Kolesnikov) i kafedry operativnoy khirurgii Voyenno-morskoy ordena Lenina akademii imeni S.M. Kirova (nach. - chlen-korrespondent AMN SSSR prof. A.N. Maksimenko).
(LUNGS--SURGERY) (PULMONARY VEIN)

BELYAYEV, I.A., inzh.; MEZHEVICH, Ye.I., inzh.

Automatic signaling of a dead contact network section. Elek.
1 tepl.tiaga 2 no.12:22-24 D '58. (MIRA 12:1)
(Electric railroads--Wires and wiring)
(Electric railroads--Signaling)

MEZHEVICH, Ye.I., otv. za vypusk,; KHITROV, P.A., tekhn. red.

[Safety regulations for the operation of the contact line network of direct-current electric railroads] Pravila bezopasnosti pri ekspluatatsii kontaktnoi seti elektrifitsirovannykh zheleznikh dorog postoiannogo toka. Izd. 2., perer. Moskva, Gos. transp. zhel-dor. izd-vo, 1958. 143 p. (MIRA 11:11)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye elektrifikatsii i energeticheskogo khozyaystva.

(Electric railroads--Wires and wiring)

(Electric railroads--Safety measures)

KOPIT, B.S.; MIKHAYLOV, A.V.; CHLENOV, A.F.; IDOV, P.I.; YUKHNOV, I.I.;
TSARSKIY, S.V.; BARANOV, V.A.; PETROV, A.I.; LIFSHITS, L.Z.;
ABATUROV, K.I.; SOKOL'SKAYA, Zh.M.; MEZHEVICH, V.N.; DAVYDOV,
L.I.; VLASIKHIN, A.V.; CHEKALOV, L.N.; STARICHKOV, T.I.;
KHUBLAROV, A.Ye., red.; PITERMAN, Ye.L., red.izd-va; PARAKHINA,
N.L., tekhn.red.

[Our beacons; collection of articles on progressive workers in
lumber, paper, woodworking industries and forestry] Nashi maiaki;
sbornik ocherkov o peredovykh lyudiakh lesnoi, bumazhnoi i derevo-
obrabatyvaiushchei promyshlennosti i lesnogo khoziaistva. Moskva,
Goslesbumizdat, 1961. 125 p. (MIRA 15:2)
(Forests and forestry) (Wood-using industries)

MEZHEVICH, V.I.; OLESHKEVICH, V.I.

Use of methylene blue in severe carbon monoxide poisoning.
Zdrav.Bel. 8 no.5:54-55 My '62. (MIRA 15:10)
(CARBON MONOXIDE--PHYSIOLOGICAL EFFECT)
(METHYLENE BLUE)

SERAFIMOV, L. A.; TIMOFEEV, V. S.; BALASHOV, M. I.; MEZHEVICH, G. V.

Solubility in the systems isobutyraldehyde - n. butyraldehyde -
water - toluene and cyclohexanol - cyclohexanone - cyclohexene -
water. Izv. vys. ucheb. zav.; khim. i khim. tekhn. 5 no.5:722-
726 '62. (MIRA 16:1)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
Lomonosova, kafedra tekhnologii osnovnogo organicheskogo
sinteza.

(Systems(Chemistry)) (Solubility)

LIPGART, A.A., doktor tekhn.nauk, prof., zasluzhemyy deyatel' nauki i tekhniki RSFSR; GRISHIN, M.D.; BELITSKIY, Ya.S.; MEZHEVICH, P.Ye., inzh.; KORMILITSYN, A.M.; MALINOVSKIY, G.S., master sporta, sud'ya respublikanskoy kategorii

Makers of automobiles. Tekhn. mol. 31 no. 9:12-15 '63. (MIRA 16:9)

1. Zamestitel' direktora nauchno-issledovatel'skogo avtomotornogo instituta (for Lipgart). 2. Chlen yuridicheskoy komissii pri Sovete Ministrov SSSR (for Grishin). 3. Predsedatel' sekti avtomototurizma Gosudarstvennogo mekhanicheskogo zavoda, Odessa (for Belitskiy). 4. Rukovoditel' ekspertnoy gruppy po avtomobil'nomu transportu Gosudarstvennogo komiteta po delam izobretaniy i otkrytiy pri Sovete Ministrov SSSR (for Mezhevich). 5. Nachal'nik Gosudarstvennoy Avtomobil'noy inspeksii RSFSR (for Kormilitsyn). 6. Chlen Komiteta po kartingu Tsentral'nogo avtomotornogo kluba Dobrovol'nogo doma sodeystviya armii, aviatsii i flotu SSSR (for Malinovskiy).

(Automobiles---Design and construction)

MEZHEVICH, F.Ye., inzh., izobretatel'

Automobile trains for impassable roads. Izobr. i rats. no. 6:5-6
Je '62. (MIRA 15:6)

(Ground-effect machines)

T 12615-65

ACCESSION NR: AP4044922

77 77 77 77 60
 toemission for aluminum, chromium, titanium, and iron photocathodes. The setup used was described by two of the authors (Rumsh and Shchemelev, PTT v. 5, 71, 1963). A graphic procedure for separating the various components is described. The results confirm the validity of the equation derived previously by the Rumsh and Shchemelev (ZhETF v. 42, 727, 1962) for the quantum yield of the external photoeffect. "The authors thank Academician A. A. Lebedev for interest in the work and for a discussion of the results." Orig. art. has: 3 figures, 1 formula, and 1 table.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: 28Nov63

ENCL: 00

SUB CODE: OP, SS

NR REF SOV: 008

OTHER: 000

Cont 2/2

12/5/55 EWA(e)/EWT(l)/EPA(s)/EWA(e)/EWT(m)/T/KEC(t)/EPR/EAP(b) Pa-6/
 EWA(e)/EWT(l) EPR(e) JD/JU/AT

ACCESSION NR: AP4044922

8/3181/64/006/009/2569/2573

AUTHORS: Denisov, Ye. P.; Shchenslev, V. N.; Mashevich, A. N.;
 Puzat, N. A.

TITLE: Analysis of the energy composition of k-ray photoemission
from a bulky cathode

SOURCE: Fizika tverdogo tela, V. 6, no. 9, 1964, 2569-2573

TOPIC TAGS: x ray emission, x ray spectrum, photoemission, cathode,
 k band, b band

ABSTRACT: The purpose of the investigation was to separate the
 parts connected with the K, L, Auger, and secondary electrons from
 the total photoemission, and to compare the relative number of elec-
 trons in each group with the corresponding coefficients in the formu-
 la for the quantum yield. To this end, the method of spherical
 capacitor was used to study the energy composition of the k-ray pho-

Card 1/2

MEZHEVALOVA, A.G., kand. med. nauk; REUT', Ye.S.; KRYUKOVA, Ye.I.

Effect of the "regenerator" hyaluronic acid preparation in skin diseases. Vest. derm. i ven. 33 no.2:59-60 Mr-Apr '59. (MIRA 12:7)

1. Iz klinicheskoy bol'nitsy (nach. - prof. G.M. Novikov).
(HYALURONIC ACID, ther. use,
skin dis. (Rus))
(SKIN DISEASES, ther.
hyaluronic acid (Rus))

MEZHEVALOVA, A.G.

USSR/Pharmacology, Toxicology. Various Preparations

V-6

Abs Jour : Ref Zhur - Biol., No 5, 1958, No 23388

Author : Mezhevalova A.G.

Inst : Kishinev Agricultural-Institute

Title : Yuglone in an Animal Experiment

Orig Pub : Tr. Kishinevak. s. kh. in-ta, 1956, 11, 37-46

Abstract : Yuglone [5-oxy-1.4 - naphthoguinone] was administered sub-cutaneously to mice in the form of a 4.1 - 0.5% solution in peach oil. Yuglone's toleration dose was 0.04 mg/g, the toxic - 0.05-0.09 mg/g, the minimum lethal dose was 0.1-1mg/g. Experiments on guinea-pigs and rabbits, infected with human tubercular bacilli demonstrated that the use of yuglone did not prevent the development of tuberculosis, but slowed the process and decreased the intoxication severity.

Card : 1/1

MEZHEVALOVA, A. G.

MEZHEVALOVA, A. G.--"The Treatment of Tuberculosis of the Skin with
Juglone Preparation ('JUGA-1') (Clinical-Experimental Investigation)."
Kishinev State Medical Inst. Chair of Skin and Venereal Diseases.
Kishinev, 1956.
(Dissertation for the Degree of Candidate in Medical Sciences).

SO: Knizhnaya Letovis' No 9, 1956

MEZHEV, Yu. T., (Grad Stud)

Dissertation: "An Experimental Investigation of Vibration in Metal Turning Depending on the Conditions of Operation." Cand Tech Sci, Moscow Order of Lenin Aviation Inst imeni Sergo Ordzhonikidze, 22 Jun 54. (Vechernyaya Moskva, Moscow, 11 Jun 54)

SO: SUM 318, 23 Dec 1954